DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-026905
Date Inspected: 19-Dec-2011

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1730
Location: Jobsite

CWI Name:	As noted below			**CWI Present:**	☑ Yes	☐ No	
Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: SAS OBG

Summary of Items Observed:

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

1. 12W/13W/E2 Repair (Interior)
2. 13W/PP122/W3 Lifting Lug hole W2 (Exterior)
3. 13W/14W/A2.2 Repair (Interior)
4. 11W/PP101/W3 Lifting Lug Hole W2 (Interior)
5. 3” Compressed Air Pipe Tower (Exterior)

1. 12W/13W/E2 Repair (Interior)

This QA Inspector randomly observed ABF welder Fred Kaddu performing the excavation operation of an ultrasonic rejectable indication on “E2” located at "Y" 2550 mm: (20 mm wide; 100 mm length; and 10 mm in depth). This QA Inspector observed QC Inspector William Sherwood perform a Magnetic Particle Inspection (MT) of the excavation to determine the soundness of the metal. Upon completion of the testing this QA Inspector verified that no rejectable indications were present.

This QA Inspector randomly observed ABF welder Fred Kaddu (Welder ID 2188) performing the repair welding operation of an ultrasonic indication as per the Shielded Metal Arc Welding (SMAW) process in the (1G) flat position on “E2” 12W/13W on the interior of the OBG. This QA Inspector observed the use of 1/8” 3.2 mm

E7018-H4R electrodes and QC Inspector William Sherwood verify that the preheat temperature was at the minimum of 250 degrees F and that the welding parameters (Amps=135) were in accordance with WPS D1. 5–1000- Repair. The welding parameters observed at this location appeared to be in general compliance with approved WPS and the contract specifications.

2. 13W/PP122/W3 Lifting Lug hole W2 (Exterior)

This QA Inspector observed QC Inspector Sal Merino utilize a Bridge Cam Gage to measure the fit-up of the 20 mm plate in the BU-4a joint on lifting lug hole 13W/PP122/W3 Lifting Lug hole W2. This QA Inspector verified the fit-up as acceptable and employed a 65°C Tempilstik to ensure the minimum pre-heat temperature had been achieved. This QA Inspector randomly observed ABF welder Salvador Sandoval (welder ID 2202) performing the Shielded Metal Arc Welding (SMAW) process in the (1G) flat position and observed QC Inspector Sal Merino verify the welding parameters were in accordance with ABF-WPS-D15-1050A-CU. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work was completed on this date and appeared to be in general compliance with the approved WPS and the contract specifications.

3. 13W/14W/A2.2 Repair (Interior)

This QA Inspector randomly observed ABF welder Richard Garcia (ID 5892) performing the repair welding operation of an excavation as per the Shielded Metal Arc Welding (SMAW) process in the (4G) overhead position on “A” deck splice plate 13W/14W on the interior of the OBG. This QA Inspector observed the use of E7018-H4R electrodes and QC Inspector John Pagliero verify that the preheat temperature was at the minimum of 325 degrees F and that the welding parameters (Amps=135) were in accordance with WPS D1.5–1004- Repair. Upon completion of the repair, PWHT was performed at the specified temperature for a period of 1 hour.

4. 11W/PP101/W3 Lifting Lug Hole W2 (Interior)

This QA Inspector observed ABF welder Mike Jimenez (ID 4671) pre-heat the joint to 10°C prior to performing SMAW in the 4G overhead position on Lifting Lug Hole (LLH) W2 at 11W/PP101/W3. This QA Inspector observed the QC Inspector monitor the inter-pass temperatures and the welding to ensure the parameters were in compliance pertaining to ABF-WPS-D15-1110A-Revision 1. The parameters were recorded as (Amperes=194) utilizing a 4.8 mm E7018-H4R electrode. This QA Inspector randomly observed the ABF welder grind and blend the start and stop areas of the weld throughout the joints depth. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work was completed on this date and appeared to be in general conformance with the contract specifications.

5. 3” Compressed Air Pipe Tower (Exterior)

This QA Inspector observed F.W. Spencer welder Damian LLanos ID# 6645 performing Shielded Metal Arc Welding (SMAW) in the 2G horizontal position on 3 inch schedule 80 pipe located at the 90 m level of the Tower. Upon completion of the welding, the pipe is placed at the elevation indicated in the corresponding weld number. This QA Inspector verified the fit up of the joints and found it to be satisfactory. This QA Inspector observed QC Inspector Steve Jensen monitoring the welding to ensure the welding parameters were in compliance pertaining to WPS-1-12-1 Revision 2 (1.12). The welder was observed implementing 6010 electrodes in the root pass with the

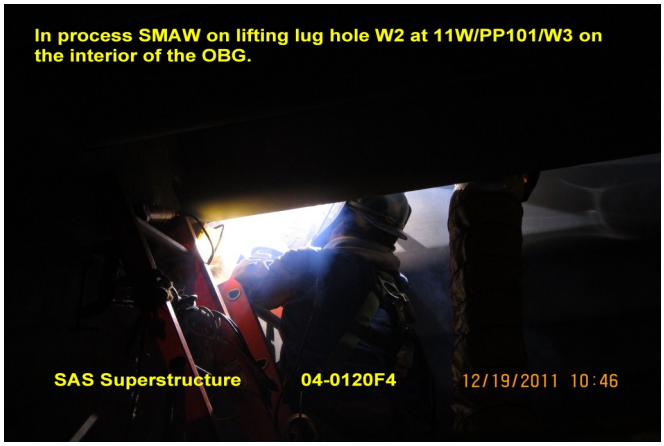
balance using 7018 electrodes. The QA inspector made subsequent observations throughout the shift to monitor quality and noted that the work listed below was completed on this date and appeared to be in general conformance with the contract documents.

41/3/T/40
42/3/T/34
43/3/T/32
45/3/T/24

Note: The QAI reviewed the observations and inspection with QA Lead Inspector, Daniel Reyes, written in this report. The issues were noted by the QAI and the QA Lead Inspector concurs with the QA report.

Summary of Conversations:

The were no pertinent conversations to report.



Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910 , who represents the Office of Structural Materials for your project.

Inspected By:	Frey,Doug	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer